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## PATENT SPECIFICATION



Application Date: June 23, 1931. No. 18,192 / 31.

**375,546**

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### PROVISIONAL SPECIFICATION.

#### Improvements in and relating to Fire Hose and like Reels.

We, NORSEN SYNDICATE, LIMITED, of 90 Pilgrim Street, in the City and County of Newcastle-upon-Tyne, a British Company, and JOHN NICHOLSON, of 5 Oakdale Terrace, Chester-le-Street, in the County of Durham, a British subject, do hereby declare the nature of this invention to be as follows:—

This invention relates to fire hose and like reels, and has for its object to provide an improved mounting therefor.

A reel in accordance with our present invention is characterised in that it is mounted so as to swing horizontally about a vertical shaft through which the water supply to the hose passes, said shaft being disposed to one side of or behind the reel. The hollow axle of the reel is supported on horizontal arms one at least of which 20 is hollow, said arms being rigidly attached to a hollow saddle or yoke mounted on a hollow vertical shaft carried by a wall bracket or similar support. The water supply to the hose may be controlled by a valve in the supply pipe leading to the hollow vertical shaft, or the water supply may be automatically controlled by a valve within the hollow axle of the reel actuated or released by the 30 rotation of the reel when the hose is drawn therefrom.

According to one construction, the hose reel with its hollow axle is revolvably mounted between a pair of horizontal side arms attached to a horizontal saddle or yoke the outer ends of these arms being formed with shouldered spigots to receive the hose-retaining rings of the reel. Both arms are hollow and either or both of them is arranged to communicate with the hollow axle of the reel through said

spigots. The arms are tapered, their larger ends being flanged for attachment to the yoke, and they are preferably lightened by the removal of their centre portions adjacent to said flanges. A pair of water passages is thus formed in each arm where the arms are joined to the yoke. The yoke comprises parallel vertical portions flanged to receive the arms and a horizontal connecting portion provided centrally with a vertical socket which receives the hollow vertical shaft whereon the yoke swings, said shaft being supported by a wall bracket which may conveniently be of I-shape in elevation and have horizontally projecting bearings for the vertical shaft to which the water supply pipe is connected.

It will be seen that the water supply flows through said vertical shaft and through the yoke and the horizontal arms (or one of them) to the hollow axle of the reel and so to the inner end of the hose. It will further be seen that, by swinging the reel so that it lies against the wall on one side or the other of the wall bracket, the projection of said reel and its support from the wall is reduced to a minimum, while the reel can freely swivel about the vertical shaft carried by said bracket and so follow the pull on the hose when the latter is drawn off the reel for use.

Dated this 23rd day of June, 1931.  
MEWBURN, ELLIS & Co.,  
Chartered Patent Agents,  
70/72, Chancery Lane, London, W.C.2,  
and  
3, St. Nicholas' Buildings,  
Newcastle-on-Tyne.

### COMPLETE SPECIFICATION.

#### Improvements in and relating to Fire Hose and like Reels.

We, NORSEN SYNDICATE, LIMITED, of 90 Pilgrim Street, in the City and County of Newcastle-upon-Tyne, a British Company, and JOHN NICHOLSON, of 5 Oakdale Terrace, Chester-le-Street, in the County of Durham, a British subject, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

[Price 1/-]

declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to fire

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hose and like reels, and has special reference to mountings therefor of the kind wherein the reel revolves horizontally and the mounting swings 5 horizontally about the axis of a hollow vertical shaft through which the water supply to the hose passes, said shaft being carried by a wall bracket or similar support disposed to one side of or behind 10 the reel. In one previous construction, the hollow axle of the reel has been directly connected to a revoluble coupling or tee-piece in the hollow vertical shaft, the axle of the reel being radial to the 15 axis of said shaft, and in another previous construction the hollow axle is connected by a pipe outside of the supporting bracket to a rotary housing at the head of the hollow vertical shaft. The object of 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 the present invention is to provide an improved reel mounting.

In a reel mounting in accordance with our invention, the hollow axle of the reel is supported on arms one at least of which is hollow, said arms being rigidly attached to a hollow saddle or yoke mounted on the hollow vertical shaft through which the water supply to the hose passes. The water supply to the 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 115 120 hose may be controlled by a valve in the supply pipe leading to the hollow vertical shaft, or the water supply may be automatically controlled by a valve within the hollow axle of the reel actuated or released by the rotation of the reel when the hose is drawn therefrom.

We will more fully describe our invention with reference to the accompanying drawings which illustrate a hose reel mounted in accordance therewith. In the drawings, Figure 1 is an elevation, Figure 2 a plan, and Figure 3 a section on the line 3—3 in Fig. 1 to an enlarged scale.

Referring to the said drawings, in the example therein illustrated, the hose reel  $\alpha$  with its hollow axle  $b$  is revolvably mounted between a pair of horizontal side arms  $c$  rigidly attached to a horizontal saddle or yoke  $d$ , the outer ends of the arms  $c$  being formed with shouldered spigots  $c^1$  to receive the hose-retaining rings of the reel. Both arms are hollow and either or both of them is arranged 55 to communicate with the hollow axle of the reel through said spigots. The arms are tapered, their larger ends being flanged at  $c^2$  for attachment by studs  $h$  to the yoke  $d$ , and they are preferably 60 lightened by the removal at  $c^3$  (Fig. 1) of their centre portions adjacent to said flanges. A pair of water passages  $c^4$  is thus formed in each arm where the arms are joined to the yoke. The yoke comprises parallel vertical portions  $d^1$  flanged 65 to receive the flanged ends  $c^5$  of the arms and a horizontal connecting portion  $d^2$  provided centrally with a vertical socket  $d^3$  which receives the upper end of the hollow vertical shaft  $e$  about the axis of which the yoke swings, said shaft being supported by a wall bracket  $f$  which may conveniently be of I-shape in elevation as shown and have horizontally projecting bearings  $f^1$  for the vertical shaft  $e$  to which the water supply pipe is connected and for a plug  $g$  fitted into the upper end of the socket  $d^3$ . The wall bracket  $f$  is flanged and secured by studs  $f^2$ .

It will be seen that the water supply flows through the vertical shaft  $e$  and through the yoke  $d$  and the horizontal arms  $c$  (or one of them) to the hollow axle  $b$  of the reel  $\alpha$  and so to the inner end of the hose  $j$ . It will further be seen that by swinging the reel so that it lies against the wall on one side or the other of the wall bracket  $f$  as shown, the projection of said reel and its support from the wall is reduced to a minimum, while the reel can freely swivel about the vertical shaft  $e$  carried by said bracket and so follow the pull on the hose when the latter is drawn off the reel for use.

A valve (not shown) may be provided in the hollow shaft  $e$ , or in the supply pipe leading thereto, for controlling the water supply to the hose, and/or the hollow axle  $b$  of the reel may be fitted with a valve automatically operated in known manner by the rotation of the reel when the hose is unwound therefrom.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A fire hose or similar reel mounting of the kind herein referred to wherein the hollow axle of the reel is supported on arms one at least of which is hollow, said arms being rigidly attached to a hollow saddle or yoke mounted on the hollow vertical shaft through which the water supply to the hose passes.
2. The improved mounting for a fire hose or similar reel constructed, arranged and adapted to operate substantially as and for the purposes herein described with reference to the accompanying drawings.

Dated this 23rd day of March, 1932.

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70/72, Chancery Lane, London, W.C.2,  
and  
3, St. Nicholas' Buildings,  
Newcastle-on-Tyne.

[This Drawing is a reproduction of the Original on a reduced scale]

